



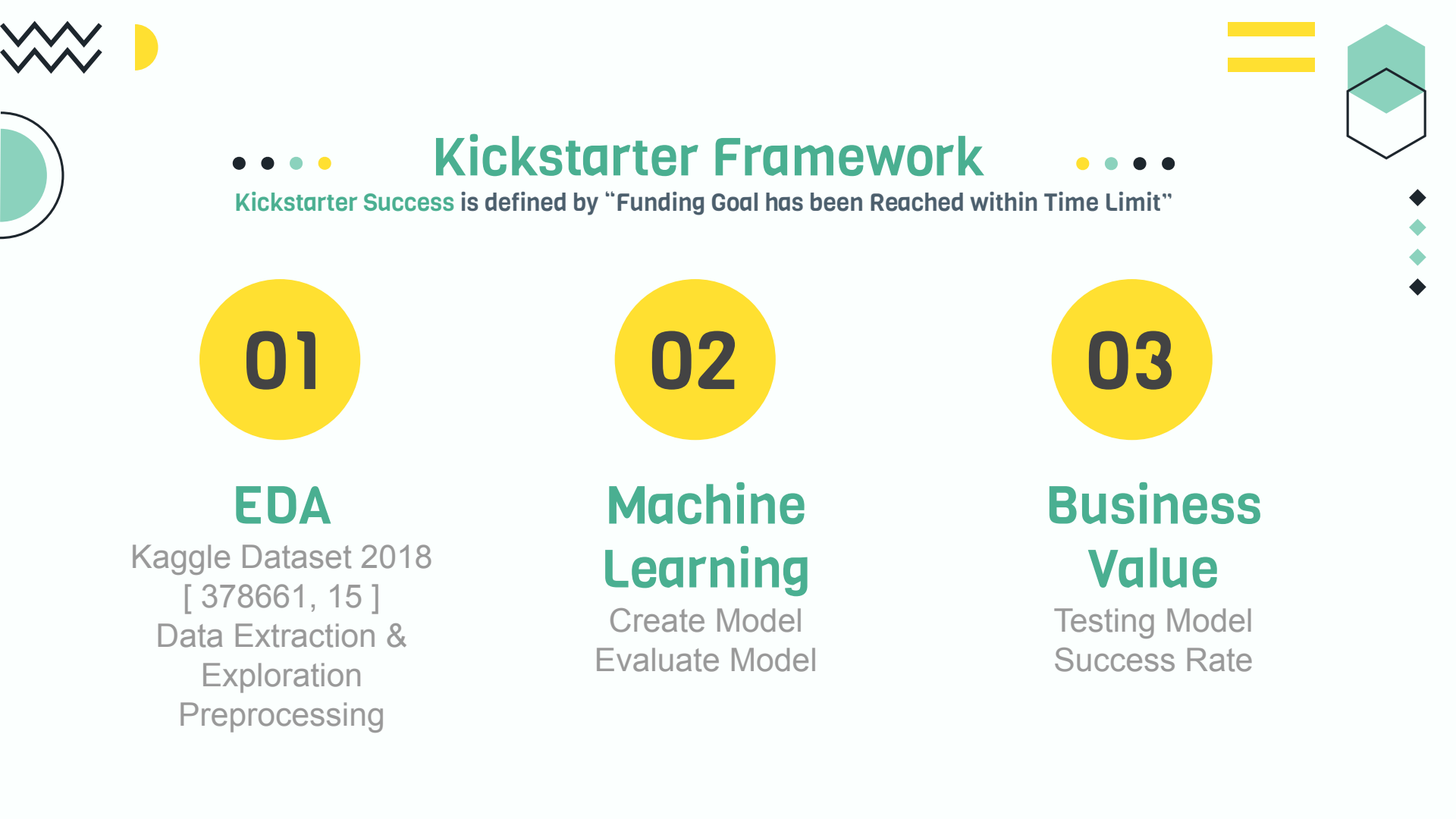
# Kickstarting Kickstarter

[ Help brings creative project to live ]

by Xccelerate with  
Alex Li, Hancock, Hui-Ee

**“ Which **Kickstarter** Projects  
will be Successful ? “**

Predict via Machine Learning





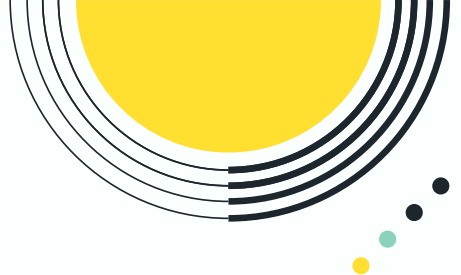
# 01/03

## EDA --

### Exploratory Data Analysis



The untold story  
behind  
**Kickstarter** stats





## [ Kickstarter Overview ]

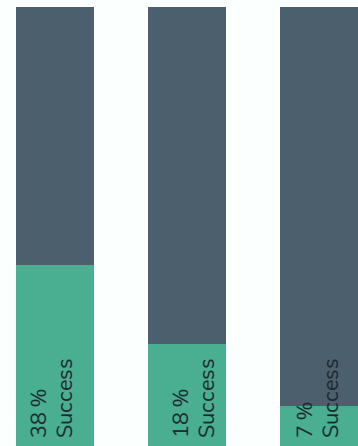


**30%**

9 out of 10 failed projects did not reach 30% of their funding goals

**25%** Only 25% of the project delivered on time

**8 Mths** After 8 months delayed, 75% projects are delivered  
**75%**

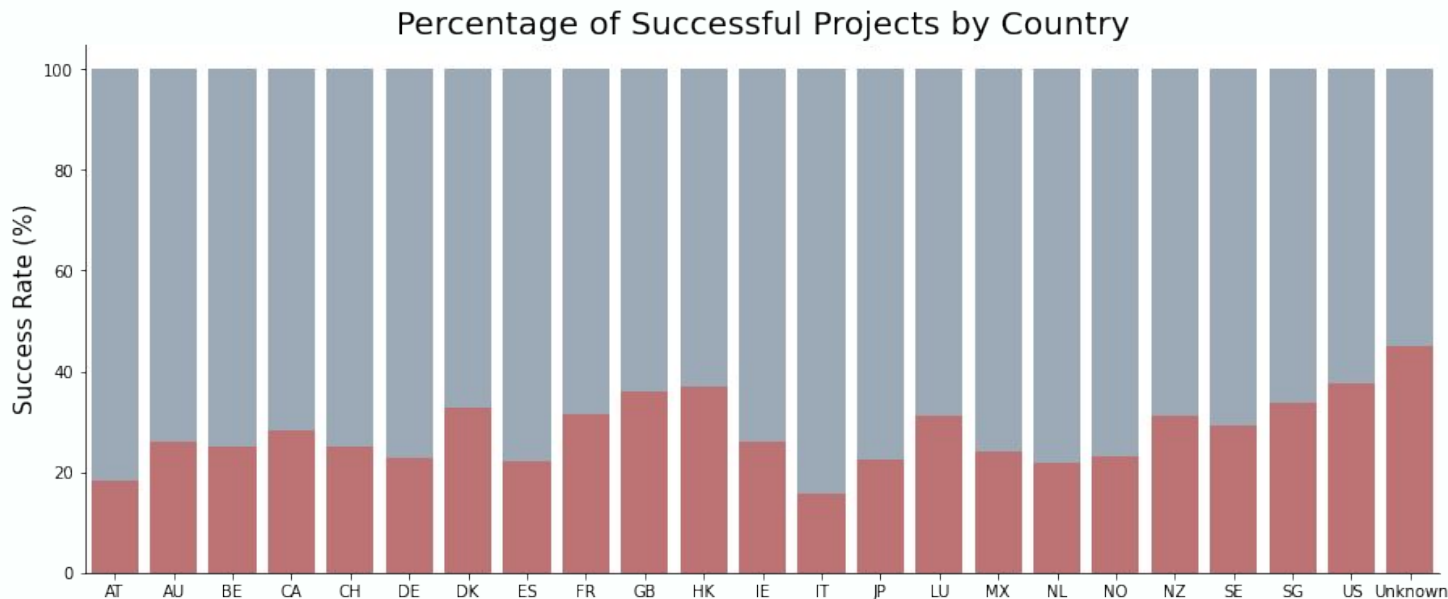


**\$10K \$50K \$100K**

The larger the project, the more likely that it will fail



## [ Projects per Country ]



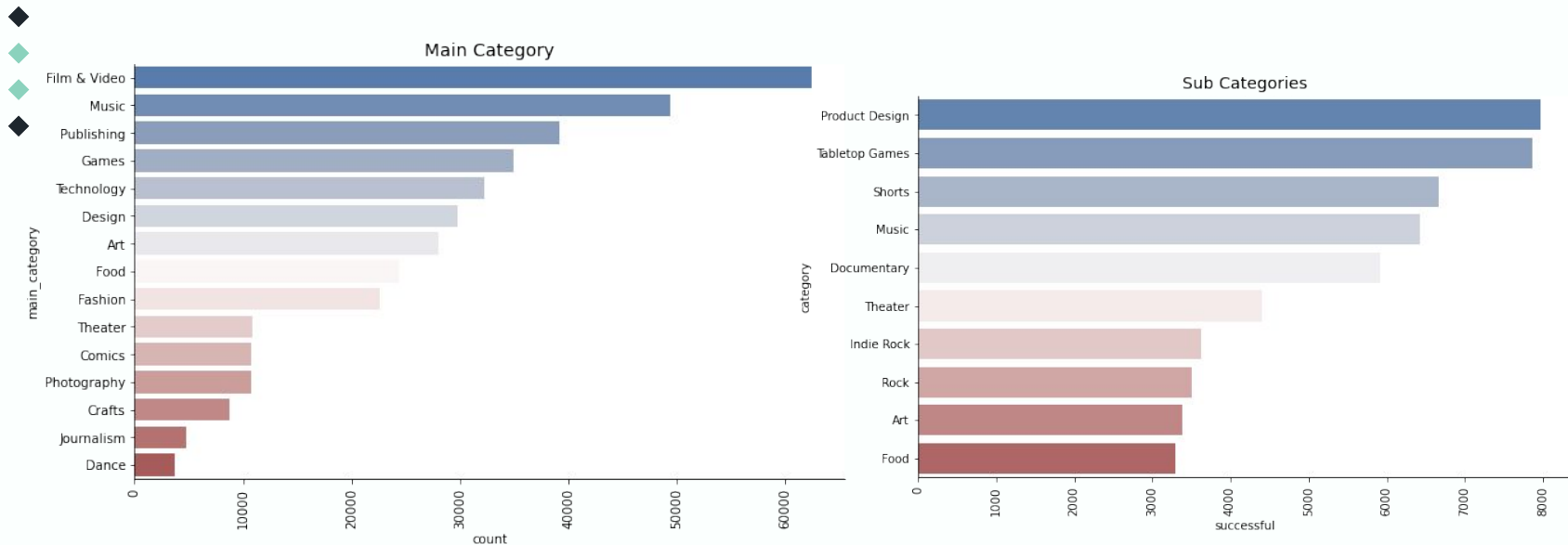
Does **Launch Country** Matter?  
**No Strong Correlation!**

No one country stands out as being exceptional at having successful Kickstarter,  
Generally English speaking countries have more projects.





# [ Categories ]



Do Categories Matter?

Yes !

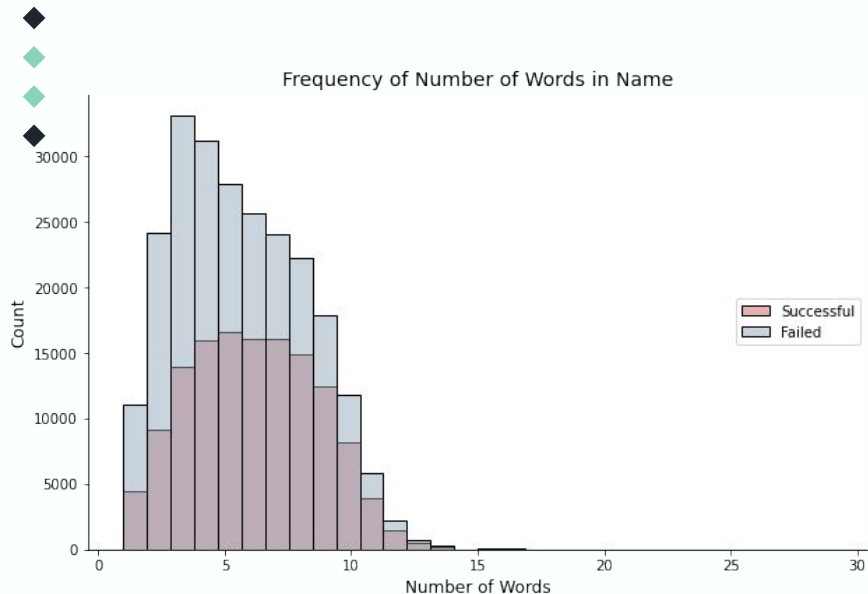
Kickstarter Projects reflects city culture

E.g. Film is more popular in LA or Tech is more popular in SF

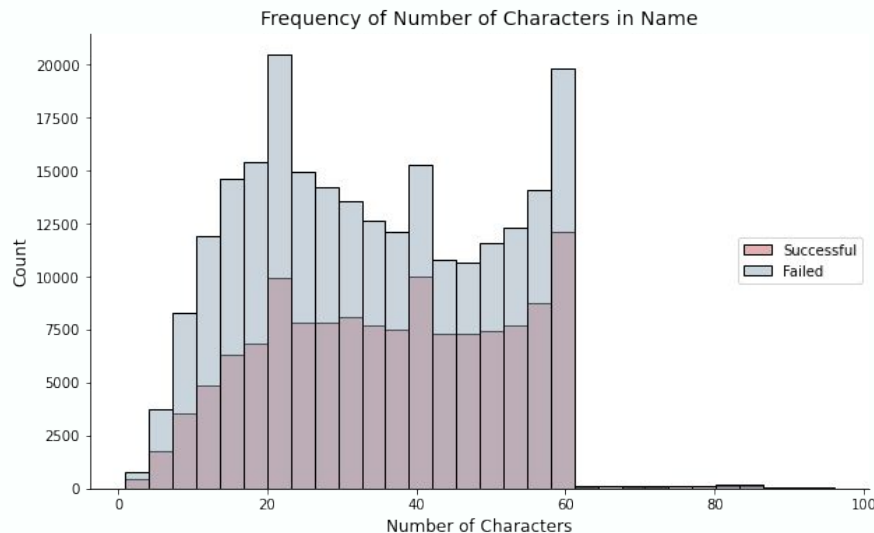




# [ Word\_Length ] [ Char\_Length ]



Does **Number of Words** Matter?  
**Weak Correlation**



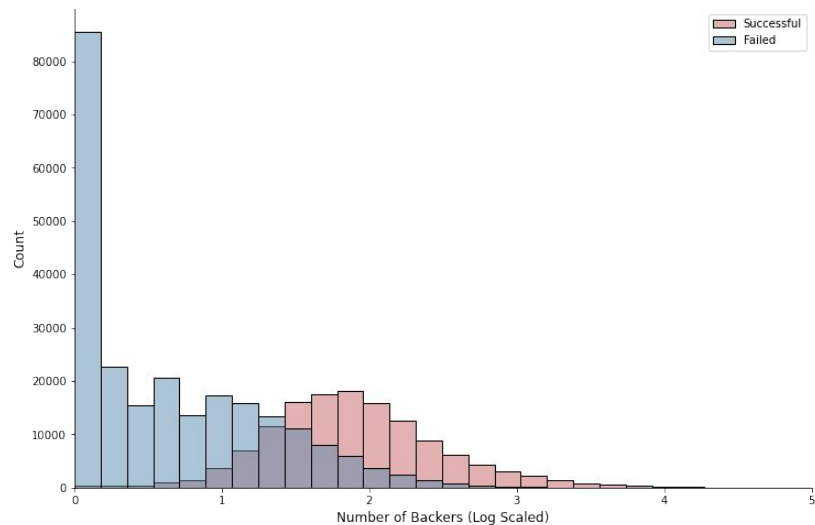
Does **Number of Characters** Matter?  
**Not for success, but...**  
Kickstarter cap at 60 characters total.  
Short & Concise !







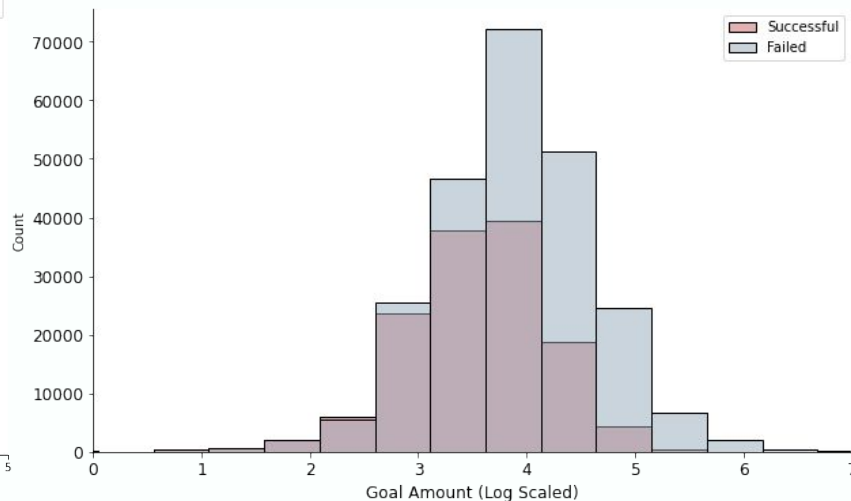
# [ Backers ][ Goals ]



Do **Backers** Matters?

**Yes !**

Higher number of backers will lead to a greater chance of Kickstarter success.



Do **Goals** Matters?

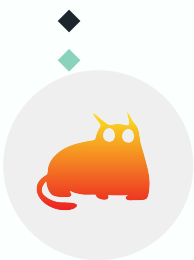
**Yes !**

The higher the goal amount set, the less likely a project is successfully funded.  
Set Realistic Goals !





## [ Distribution of Backers ]



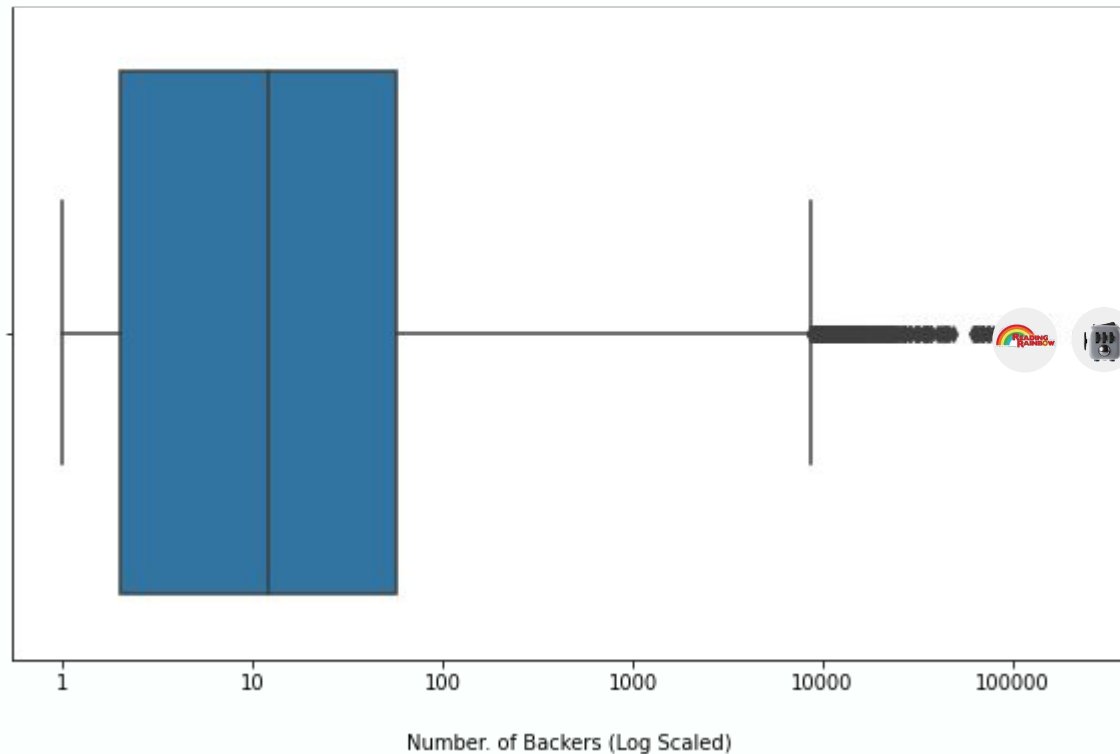
**Exploding Kittens**  
219,382 Backers  
USD 219,382



**Fidget Cube**  
154,926 Backers  
USD 6,465,690



**Reading Rainbow**  
105,857 Backers  
USD 5,408,916





## [ Most Popular Words ]



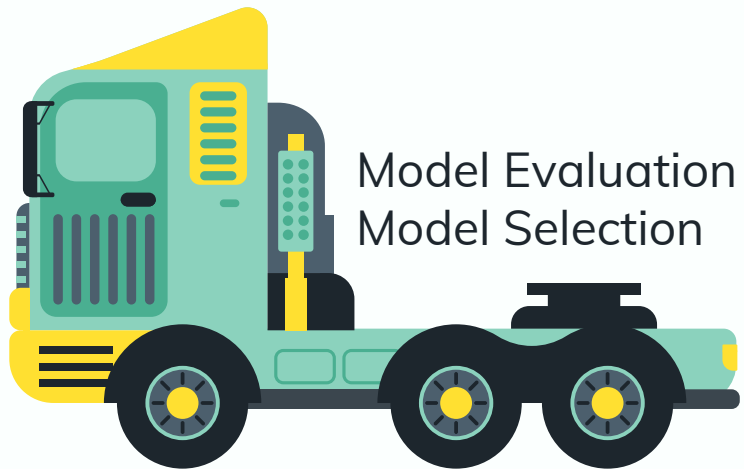
The Most Popular Words on the Successful Project Name?  
BEACH . Coffee . Name . Bar . Lisa



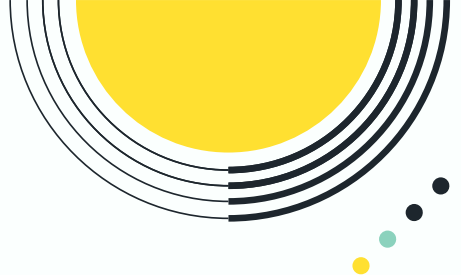


02/03

# Machine Learning



Model Evaluation  
Model Selection



# [ Methodology ]

## Engineer Features

- # Encoding
- # Scaling
- # Add/Drop Features



## Create Model

- # Decision Tree Classifier
- # Random Forest Classifier
- # Logistic Regression
- # AdaBoost Classifier
- # XGBoost Classifier

## Evaluate Model

- Aim for Higher Accuracy
- # F1-Score [ Precision / Recall ]
- # Hyperparameter Tuning

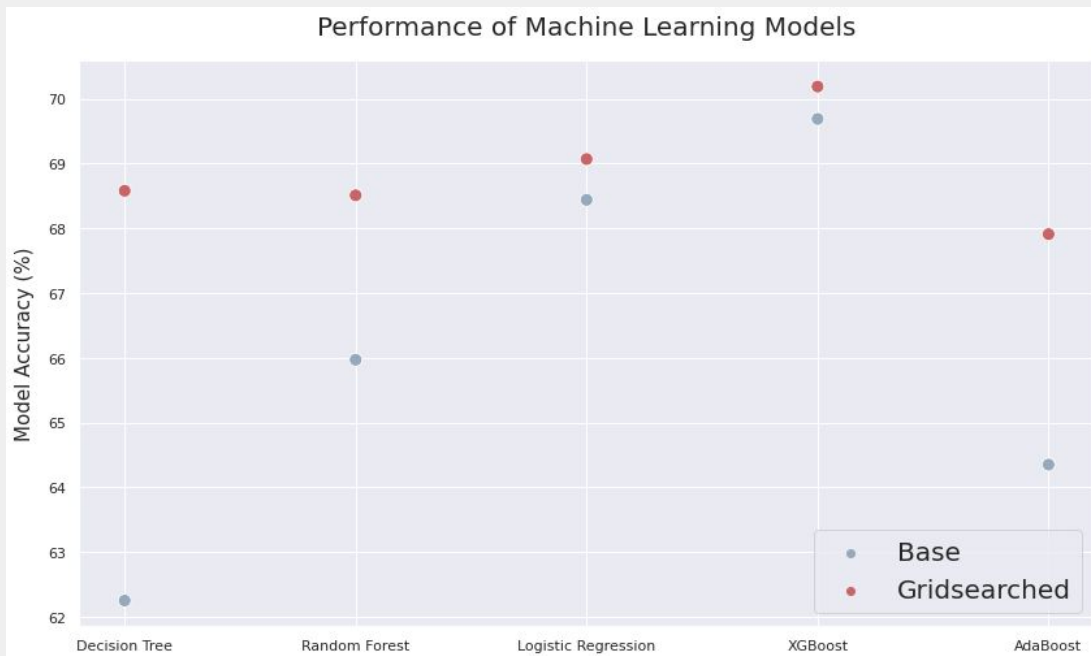


## Final Model

- # Ability to predict probability of Kickstarter success

# [ Model Comparison ]

## Supervised Learning Model



### Input Data

[ User Defined ]

Name  
Category  
Currency  
Project Length  
Goal (in USD)

### Output

[ Prediction ]

State  
Success / Failure



## [ Model Selection ]

### XGBoost Classifier

- Greatest Accuracy Score (70% vs. 68%-69% for others)
- Best balance between 'Precision' & 'Recall'. (F1-Score 0.50 vs. 0.15-0.45)

Precision roughly equal between models but recall greatly varied.

## [ Improvements ]

### Action Taken:

- Scaling to a different range to give greater weight for certain features
- Taking Log Scale of 'Goal Amount' provided marginally better results
- Attempts at reengineering features resulted in < 1% change for models





## [ Future Improvements ]

### **Additional Data**

Project Description  
Stretch Goals  
Returning Kickstarter

### **Alternative Models**

Neural Network  
Exploration







03/03

Business  
Value



Product  
Prediction



# Kickstarting Kickstarter Success

Classified projects as probable success or failure based on Kickstarter Features, Social Media, and Backers



**Featured by  
Kickstarter**

Featured project has  
89% success rate



Importance of social feature !  
**FB / Instagram /  
Twitter**

>1,000 FB friends has  
40% success rate



**>20 Backers**

>20 Backers has  
50% success rate

**“ Our model predicts probability of  
Kickstarter Success.”**